In the Claims:

1. (currently amended) A method of controlling congestion in a communications network, the method comprising:

detecting a network congestion condition on one of a plurality of ~~a connection~~ connections between a sender and a receiver in the communications network, the plurality of connections providing an association between the sender and receiver and ~~the connection~~ having a desired fixed bandwidth, the network congestion condition detected in response to an occupancy threshold of a transmit buffer of the sender; and

upon detection of the network congestion condition, controlling new traffic emitted into the communications network to not exceed the lesser of a current amount of unacknowledged traffic emitted by the sender into the communications network at a time of detection of the congestion condition, and a current receiver buffer size at that time.

2. (cancelled).

3. (previously presented) The method of claim 1, wherein the network is a private network , and wherein a total bandwidth of the private network is allocated among a plurality of connections between a plurality of nodes in the private network to provide a desired fixed bandwidth for each connection, and wherein the step of controlling new traffic maintains the desired fixed bandwidth on the connection.

4. (currently amended) A method of controlling congestion in a communications network, the method comprising:

detecting a potential congestion condition in one of a plurality of connections that associate ~~a connection between~~ a source node and a receiving node in the communications network, the association ~~connection~~ having a desired bandwidth; and

upon detection of the potential congestion condition, controlling new traffic emitted into the communications network to be no more than the lesser of a current unacknowledged traffic

load at the source node of the network at the time of detection and a receive buffer size of the receiving node.

5. (currently amended) The method of claim 4, wherein the network is a private network, and wherein a total bandwidth of the private network is allocated among a plurality of associations ~~connections~~ between a plurality of nodes in the private network to provide a desired bandwidth for each association ~~connection~~, and wherein the step of controlling new traffic maintains the desired bandwidth ~~on~~ for each association ~~connection~~ .

6. (currently amended) A method of controlling congestion in a communications network, the method comprising:

determining whether a congestion condition is present in one of a plurality of connections that associate a sending node and a receiving node in response to an occupancy threshold of a transmit buffer of [[a]] the sending node in the communications network;

when a congestion condition is present, setting a congestion window size to a prescribed value , wherein the prescribed value is the lesser of a current amount of unacknowledged traffic emitted by the sending node into the network at a time of detection of the congestion condition, and a current receiver buffer size at that time; and

controlling traffic from the sending node delivered into the communications network on the plurality of connections so that the amount of unacknowledged traffic from the sending node does not exceed the congestion window size.

7. (cancelled)

8. (withdrawn) A method of controlling congestion on a connection in a network coupling a transmitting and receiving node, wherein the network is a private network and each connection in the network has an allocated bandwidth, the method including the step of:

forwarding packets on the connection at a bandwidth allocated to the connection;

monitoring the connection for indications of congestion on the connection, the indications including indications of dropped packets; and

controlling a rate of retransmission of the dropped packets to ensure that the allocated bandwidth of the connection is not exceeded.

9. (withdrawn) The method of claim 8,wherein the step of monitoring the connection for indications of congestion include the step of monitoring an occupancy of a transmit buffer at the transmitting node, and determining that the connection is congested in response to a first threshold level of occupancy of the transmit buffer.

10. (withdrawn) The method of claim 9, wherein the step of monitoring the connection for indications of congestion include the step of monitoring the occupancy of a transmit buffer and determining that the connection is not congested in response to a second threshold level of occupancy of the transmit buffer.

11. (withdrawn) The method of claim 10, wherein the first threshold level is different than the second threshold level.

12. (withdrawn) The method according to claim 8, wherein in response to the indication of congestion on the connection, a congestion window cwnd related to an amount of unacknowledged data that may be transmitted on the connection by the transmitting node is set equal to the lesser of either a current amount of unacknowledged traffic including retransmissions or a receive buffer size of the receiving node.

13. (withdrawn) The method according to claim 8 wherein the network operates using a Stream Control Transmission Protocol (SCTP).

14. (New) A method of controlling congestion in a communications network, the method comprising:

establishing an association between a sender and a receiver including the step of identifying a plurality of connections for providing communication between the association;

allocating a fixed bandwidth to the association, the fixed bandwidth being shared by the plurality of connections;

forwarding communications from the sender to the receiver on one of the plurality of connections;

detecting a network congestion condition on the one of a plurality of connections; and

upon detection of the network congestion condition, controlling new traffic emitted onto another one of the plurality of connections such that the sum of traffic on the plurality of connections does not exceed the fixed bandwidth allocated to the association.